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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/830,044 04/23/2004		Yasuhiro Ogata	Q80791	8714	
23373 · 75	590 12/15/2006		EXAMINER		
SUGHRUE MION, PLLC			SHEWAREGED, BETELHEM		
2100 PENNSY: SUITE 800	LVANIA AVENUE, N.W.	ART UNIT	PAPER NUMBER		
WASHINGTON, DC 20037			1774		
•			DATE MAILED: 12/15/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

			Application No.		Applicant(s)				
			10/830,044		OGATA ET AL.				
Office Action Summary			Examiner		Art Unit				
			Betelhem Shew	areged	1774				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply									
A SHORTEN WHICHEVER - Extensions of tir after SIX (6) MC - If NO period for - Failure to reply of Any reply receive	ED STATUTORY PERIOD F R IS LONGER, FROM THE M ne may be available under the provision NTHS from the mailing date of this com reply is specified above, the maximum s within the set or extended period for repl ed by the Office later than three months arm adjustment. See 37 CFR 1.704(b).	MAILING DAT s of 37 CFR 1.136( munication. tatutory period will y will, by statute, ca	TE OF THIS C (a). In no event, how I apply and will expire cause the application	OMMUNICATION wever, may a reply be time e SIX (6) MONTHS from t to become ABANDONED	l. ely filed the mailing date of this c O (35 U.S.C. § 133).	,			
Status	,	•							
2a) ☐ This ac 3) ☐ Since the	nsive to communication(s) fil tion is <b>FINAL</b> . his application is in condition in accordance with the pract	2b)⊠ This a for allowanc	ection is non-fi ce except for fo	ormal matters, pro		e merits is			
Disposition of C	laims		•						
4a) Of t 5)	s) <u>1-3, 5, 6 and 8-22</u> is/are points above claim(s) is/as) is/are allowed. s) <u>1-3, 5, 6 and 8-22</u> is/are respond to is/are objected to. s) is/are subject to restri	are withdrawr	n from conside						
Application Pap	ers								
10) The dra Applicat Replace	ecification is objected to by the wing(s) filed on is/are not may not request that any objected the drawing sheet(s) including the or declaration is objected the wing sheet of the contraction is objected to be wing sheet of the contraction is objected to be wing sheet of the contraction is objected to be wing sheet of the contraction is objected to be wing sheet of the contraction is objected to be wing sheet of the contraction is objected the contractio	e: a) accept ection to the dr g the correction	oted or b) oted or b) oted or b) oten or b) or b	d in abeyance. See he drawing(s) is obje	37 CFR 1.85(a). ected to. See 37 C	• •			
Priority under 3	5 U.S.C. § 119								
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>									
2) Notice of Drafts	ences Cited (PTO-892) sperson's Patent Drawing Review (I			Interview Summary ( Paper No(s)/Mail Dat	te				
3) Information Dis	B) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)  6) Other:								

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#### **DETAILED ACTION**

Applicant's response along with the Request for Continued Examination (RCE) filed on 11/21/2006 has been fully considered. The 35 USC 102 rejection and the 35 USC 103 rejection have been withdrawn in view of Applicant's amendment and comments.

2. Claim 1 is amended, claims 4 and 7 are canceled and claims 1-3, 5, 6 and 8-22 are pending.

### Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 4. Claims 1-6, 8, 17 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Serizawa et al. (US 2002/0058589 A1).
- 5. Serizawa discloses a recording material comprising a support, a resin layer on the support and a recording layer on the resin layer (abstract). The resin layer comprises a binder such as gelatin and polyvinyl alcohol, and water swellable synthetic mica having an aspect ratio of 100 or more ([0022], [0043] and [0061]-[0065]). The recording layer comprises an inorganic pigment among other components and a binder such as polyvinyl alcohol, cellulose resin and gelatin ([0150]-[0156]). The support comprises a base paper having a basis weight of 100gsm ([0188] and [0277]).

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### Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 1-3, 5, 6 and 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majumdar et al. (US 6,475,695 B2) in further view of Ohbayashi et al. (US 6,492,005 B1) and Serizawa et al. (US 2002/0058589 A1).
- 8. Majumdar discloses an imaging member comprising an image layer and a support (abstract). The support comprises a paper sheet and a layer (also referred as "nanocomposite material"), wherein the layer comprises an inorganic particle such as mica having the claimed aspect ratio, and a resin such as polyvinyl alcohol. The layer further comprises optional components such as titanium oxide, zinc oxide, talc, calcium carbonate, zinc stearate and fatty amides. The layer may be applied on both sides of the support. (See col. 3, line 65 thru col. 4, line 52; col. 7, line 19 thru col. 8, line 26; col. 11, lines 1-11 and 64; and claims 1, 12 and 19).
- 9. Majumdar does not disclose image layer as claimed.
- 10. Ohbayashi teaches a recording sheet comprising a support and an ink absorptive layer (abstract). The ink absorptive layer comprises a resin such as polyvinyl alcohol, gelatin and cellulose and a hardener such as boron compound (col. 13, line 61 and col. 15, line 52).

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11. Majumdar and Ohbayashi are analogous art because they are from the same field of endeavor that is the recording sheet art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ink absorptive layer of Ohbayashi with the invention of Majumdar so as to provide a recording sheet having enhanced image quality, drying property and water resistance property.

- 12. In Majumdar, the layer between the support and the image layer does not comprise water swellable synthetic mica as claimed.
- 13. Serizawa teaches a recording material comprising a support, a resin layer on the support and a recording layer on the resin layer (abstract). The resin layer comprises a binder such as gelatin and polyvinyl alcohol, and water swellable synthetic mica having an aspect ratio of 100 or more ([0022], [0043] and [0061]-[0065]).
- 14. Majumdar and Serizawa are analogous art because they are from the same field of endeavor that is the recording medium art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the resin layer of Serizawa with the invention of Majumdar in order to prevent printed image defects (see [0024] of Serizawa).

## Response to Arguments

15. Applicant's arguments with respect to claims 1-3, 5, 6 and 8-22 have been considered but are moot in view of the new ground(s) of rejection.

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#### Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

- 17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BS

December 9, 2006.

BETELHEN SHEWAREGED